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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/889,255	10/29/2001	Michael Stanford Showell	CM2000XM	2543

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EXAMINER	
KUMAR, PREETI	

ART UNIT	PAPER NUMBER
1751	

DATE MAILED: 05/19/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/889,255	SHOWELL ET AL.	
	Examiner	Art Unit	
	Preeti Kumar	1751	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *22 February 2005*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-4,6-8 and 11-20* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-4,6-8 and 11-20* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Non-Final Rejection After RCE

Response to Amendment

1. Claims 1-4 and 6-8, 11-20 are pending. Claim 1 is independent.

2. The rejection of claims 1-4 and 6-8 under 35 U.S.C. 112, second paragraph, is withdrawn in light of applicants amendment to the claims.

3. The rejection of claim 11 under 35 U.S.C. 112, second paragraph, is maintained. Specifically, the limitation to superior cleaning performance is indefinite because the limitation recited does not make clear or define the boundaries of the subject matter for which patent protection is sought.

4. The rejection of claim 9 under 35 U.S.C. 103(a) as being unpatentable over Schulein et al. (US 6,268,197) is withdrawn in light of applicants cancellation of the claim.

5. The rejection of claim 20 under 35 U.S.C. 103(a) as being unpatentable over Schulein et al. (US 6,268,197) is withdrawn in light of applicants amendment to the claims.

6. The rejection of claims 1-4 and 6-8,10-19 under 35 U.S.C. 102(e) as being anticipated by Schulein et al. (US 6,268,197) is withdrawn in light of applicants amendment to the claims.

Response to Arguments

7. Applicant's arguments with respect to claims 1-4 and 6-8, 11-20, filed 2/22/2005 have been considered but are moot in view of the new ground(s) of rejection.

New Grounds of Rejection

Claim Rejections - 35 USC § 112

8. The following is a quotation of the first paragraph of 35 U.S.C. 112:

> The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

9. Claim 1 is rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. Specifically, amended claim 1 now recites the limitation that the detergent composition contains less than 25% of pectic enzymes which are not pectin lyase enzymes. However Applicants specification provides support for the limitation that the pectate lyase has less than 25% of other pectin degrading enzymes. The claim as amended seeks patent protection for a significant percentage of pectin lyase having less than 25% of other pectin degrading enzymes. However the specification provides basis for a significant percentage of pectate lyase having less than 25% of other pectin degrading enzymes. See applicants specification page 7, ln.15-21. For examination purposes, examiner has interpreted this limitation to include Pectate Lyase EC 4.2.2.2, which has less than 25% of other pectin degrading enzyme activities. See applicants specification page 7 line 20-21.

Claim Rejections - 35 USC § 103

10. Claims 1-4 and 6-8, 11-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Schulein et al. (US 6,268,197) in view of Andersen et al. (US 6,165,769).

Schulein et al. teach cleaning compositions comprising surfactants of the formula recited by the instant claims.

Specifically regarding claims 1-4 and claims 12-17, Schulein et al. teach anionic surfactants include the alkyl sulfate surfactants which are water soluble salts or acids of the formula ROSO3 M wherein R is a C10 -C24 hydrocarbyl, an alkyl or hydroxyalkyl having a C10 -C20 alkyl component, more a C12 -C18 alkyl or hydroxyalkyl, and M is H or a cation, e.g., an alkali metal cation (e.g. sodium, potassium, lithium), or ammonium or substituted ammonium (e.g. methyl-, dimethyl-, and trimethyl ammonium cations and quaternary ammonium cations such as tetramethyl-ammonium and dimethyl piperdinium cations and quaternary ammonium cations derived from alkylamines such as ethylamine, diethylamine, triethylamine, and mixtures thereof, and the like). Typically, alkyl chains of C12 -C16 are preferred for lower wash temperatures (e.g. below about 50o C.) and C16 -C18 alkyl chains are preferred for higher wash temperatures (e.g. above about 50o C.). Other anionic surfactants useful for detersive purposes can also be included in the laundry detergent compositions of the present invention. Theses can include salts (including, for example, sodium, potassium, ammonium, and substituted ammonium salts such as mono- di- and triethanolamine salts) of soap, C8 -C22 primary or secondary alkanesulfonates, C8 -C24 olefinsulfonates, sulfonated polycarboxylic acids prepared by sulfonation of the pyrolyzed product of alkaline earth metal citrates,

alkyl glycerol sulfonates, fatty acyl glycerol sulfonates, fatty oleyl glycerol sulfates, alkyl phenol ethylene oxide ether sulfates, paraffin sulfonates, alkyl phosphates, isethionates such as the acyl isethionates, N-acyl taurates, alkyl succinamates and sulfosuccinates, monoesters of sulfosuccinates (especially saturated and unsaturated C12-C18 monoesters) and diesters of sulfosuccinates (especially saturated and unsaturated C6 - C12 diesters), acyl sarcosinates, sulfates of alkylpolysaccharides such as the sulfates of alkylpolyglucoside (the nonionic nonsulfated compounds being described below), branched primary alkyl sulfates, and alkyl polyethoxy carboxylates such as those of the formula RO(CH2 CH2 O)k --CH2 COO--M+ wherein R is a C8 -C22 alkyl, k is an integer from 1 to 10, and M is a soluble salt forming cation. Alkylbenzene sulfonates are highly preferred. Especially preferred are linear (straight-chain) alkyl benzene sulfonates (LAS) wherein the alkyl group contains from 10 to 18 carbon atoms. Please see col.15-16.

Schulein et al. teach detergent surfactants include the amine oxide surfactants having the formula: as recited by the instant claim 1 part B, wherein R3 is an alkyl, hydroxyalkyl, or alkyl phenyl group or mixtures thereof containing from about 8 to about 22 carbon atoms; R4 is an alkylene or hydroxyalkylene group containing from about 2 to about 3 carbon atoms or mixtures thereof; x is from 0 to about 3: and each R5 is an alkyl or hydroxyalkyl group containing from about 1 to about 3 carbon atoms or a polyethylene oxide group containing from about 1 to about 3 ethylene oxide groups. The R.sup.5 groups can be attached to each other, e.g., through an oxygen or nitrogen atom, to form a ring structure.

Regarding claims 6 and 17, Schulein et al. teach that these amine oxide surfactants include C10 -C18 alkyl dimethyl amine oxides and C8 -C12 alkoxy ethyl dihydroxy ethyl amine oxides. When included therein, the laundry detergent compositions of the present invention typically comprise from 0.2% to about 15%, preferably from about 1% to about 10% by weight of such semi-polar nonionic surfactants. Regarding claims 7-8 and 18-19, Schulein et al. teach that the laundry detergent compositions typically comprise from about 1% to about 40%, preferably from about 3% to about 20% by weight of anionic surfactants. Please see col.18, ln.5-30.

Regarding the enzymes, Schulein et al. teach that the xyloglucanase may further comprise one or more enzymes selected from the group consisting of proteases, cellulases, pectin lyase and pectate lyase. See col.5, ln.33.

Schulein et al. do not specifically teach the utility of pectate lyase at a level of from 0.0001% to 2% as recited by the instant claim 1 or 0.0005% to 0.5% pure enzyme as recited by claim 20. Also Schulein et al. do not specifically teach that the detergent composition contains less than 25% of other pectin degrading enzyme activities.

Andersen et al. teach pectin degrading enzymes derived from or endogeneous to Bacillus licheniformis or other Bacillus species which are at least 99% homologous to Bacillus licheniformis based on aligned 16S rDNA sequences have optimum activity at pH higher than 8. The pectin degrading enzymes belongs to the enzyme classes pectate lyases (EC 4.2.2.2), pectin lyases (EC 4.2.2.10) and polygalacturonases (EC 3.2.1.15) and are useful in industrial processes under alkaline conditions such as in textile processing and as an active ingredient eg in laundry detergents and hard surface

cleaning products. See abstract and col.11,ln.20-25. In col.39-40, examples 5-6, Andersen et al. illustrate pectate lyase EC 4.2.2.2 treatment of cotton fabric.

It would have been obvious, to one of ordinary skill in the art, at the time the invention was made, to formulate a detergent composition comprising pectate lyase at a level recited by the instant claims with a reasonable expectation of success, because the teachings of Schulein et al. suggest a detergent composition comprising pectate lyase in general, and Andersen et al. suggest pectate lyase 4.2.2.2 in an analogous cleaning composition. One of ordinary skill in the art would have been motivated to combine the teachings of Schulein et al. with that of Andersen et al. since both references teach treating textiles with pectin degrading enzymes in general.

Conclusion

11. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Preeti Kumar whose telephone number is 571-272-1320. The examiner can normally be reached on M-F 9:00am - 5:30pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Yogendra N. Gupta can be reached on 571-272-1316. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Preeti Kumar
Examiner
Art Unit 1751

PK

Margaret Einsmann

MARGARET EINSMANN
PRIMARY EXAMINER
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